

RD

1
A36

v. 4

no. 1

Biological
& Medical
Serials

Biological
& Medical
Serials

BULLETIN AMERICAN COLLEGE of SURGEONS

VOL. IV

JANUARY, 1919

NO. 1

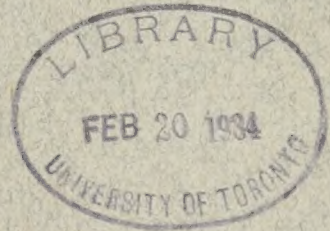
HOSPITAL STANDARDIZATION SERIES

CASE RECORDS AND THEIR USE

BY

JOHN G. BOWMAN

Director of the College



AMERICAN COLLEGE OF SURGEONS

25 EAST WASHINGTON STREET, CHICAGO

STORAGE

BULLETIN
OF THE
AMERICAN COLLEGE *of* SURGEONS

VOL. IV

JANUARY, 1919

No. 1

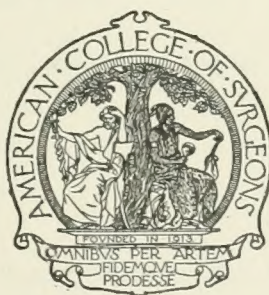
HOSPITAL STANDARDIZATION SERIES

CASE RECORDS AND THEIR USE

BY

JOHN G. BOWMAN

Director of the College



AMERICAN COLLEGE OF SURGEONS

25 EAST WASHINGTON STREET, CHICAGO

CONTENTS

CASE RECORDS AND THEIR USE

In Relation to Hospital Success.....	I
Test of Medical Patriotism.....	I
Case Records in Army Hospitals.....	2
Case Records for Private Patients.....	3
Check upon Character of Service.....	4
Why Meetings of Hospital Staff.....	4
Practical Points About Case Records.....	6

EXPLANATION OF RECORD FORMS

Summary Card.....	7
Personal History.....	8
Outline for Personal History.....	9
Physical Examination.....	10
Outline for Physical Examination.....	10
Eye, Ear, Nose and Throat.....	12
Operative Record.....	12
Treatment Record — Physician's Orders.....	12
Progress Record.....	12
Laboratory Record.....	12
Labor Record.....	12
Newborn Record.....	13

BIBLIOGRAPHY WITH SPECIAL REFERENCE TO CASE RECORDS..... 13

CASE RECORDS AND THEIR USE

IN RELATION TO HOSPITAL SUCCESS

TO create grim earnestness among hospitals in the matter of case records and to indicate the relation of case records to good hospital service are the purposes of these pages. The sheets or record-forms described in the following pages are published simultaneously by the College in Bulletin No. 2, Vol. IV. The sole object in issuing these two bulletins is to make for the better practice of medicine; and whatever value they may present toward this end springs from the good co-operation of the hospitals with the College in its program of hospital standardization.

The keeping of case records in hospitals came about in a natural fashion. Long ago, as the practice of medicine developed into a profession, the more competent and conscientious practitioners made notes for themselves as to the physical condition of their various patients and as to what they did for their patients. These notes were aids to the memories of the doctors who made them, and a guide for other doctors when similar cases presented; they were an effort in the interest of the patient. Then by very swift degrees medicine became a more complex and exact science and the need for notes or records in clinical practice became more imperative; and as this process went on and great strides forward occurred in medical science like the discovery of bacteria, anæsthesia, and asepsis, there came a quick development of hospitals with their cleanliness, their laboratories, their X-ray apparatus, their dietitians, their trained nurses, and their case records. All of these advances are to aid the doctor in the care of his patients.

The whole story of hospitals is one of natural evolution. Today the hospital is in a striking period of transition, changing from the kindly-disposed boarding house for sick people, which met a genuine need in its day, to the institution worth while on its own account, rendering service to the sick for which it assumes responsibility. In other words, the modern hospital is an institution where not only the competent study and treatment of sick people *may* occur, but where, also, the competent study and treatment of every man, woman, and child who enters its service as a patient *do* occur as a matter of clear-cut institutional policy.

The remarkable success in recent years, financially and otherwise, of the comparatively few hospitals which have instituted and carried forward this policy indicates the lines of hospital advancement during at least the next decade. The reasons for the success of these hospitals are the quick appreciation and gratitude on the part of the public for the service rendered and the resultant bonds of confidence created between these hospitals and their communities. The wholesome factor of competition means among hospitals, as among individuals or among nations, that success and prosperity will come where due on the basis of merit.

TEST OF MEDICAL PATRIOTISM

But to return now to case records: First, what are these records? Second, what element are the records in the success of a hospital?

First, case records are an orderly and written statement of the complaint of the patient, of the findings as to the physical and mental condition of the patient, of the treatment,

medical and surgical, of the complications, if any, and of the final results.

Second, as to the relation of case records to the success of the hospital: If case records are essential to good hospital service, just why are they essential?

In answer to this question let us keep vividly in mind that the hospital exists for the patient. Let us assume that the hospital seeks to give worthy service to every man, woman, and child admitted to its care; that in return it seeks the confidence and good-will, and even the financial aid of its community. If these conditions are true, it follows that the hospital creates an equation which consists of service to the sick on its own part, balanced by proportionate and practical gratitude for that service on the part of the public. The next and inevitable step is that the truth of the equation be sharply tested. Rational and convincing evidence as to the hospital's service is wanted by the public, and not general or sentimental optimism. In other words, because of its very importance, the hospital is under fire of criticism. In some practical fashion it must account for efficient performance in every department. It must account for the ability and in some measure for the moral worth of the doctors privileged to practice within its walls; for the completeness and dependability of its laboratory reports, including the X-ray; for the faithfulness and intelligence of its superintendent, its internes, and its nurses; and for the strength of all of these to work together in single purposefulness. How shall the hospital make this accounting? Well, results are what count and the results are to be found in case records.

The first practical reason, therefore, as here stated for the keeping of case records is that these records are a pledge of loyalty of service on the part of the hospital to its community. For example, a patient comes to the hospital, a diagnosis of appendicitis is made, the patient is operated upon and dies; unless an accurate record of the case has been kept showing the hopeless state of the patient and what was done for him, how can either the hospital or the surgeon justify a death from simple appendicitis?

CASE RECORDS IN ARMY HOSPITALS

The relation of the army hospitals since the beginning of the Great War to the people of this country is an excellent illustration in point. The officers of the medical department of the United States Army realized at the outset that the Surgeon General's office was accountable to the entire nation for the treatment of each soldier admitted to sick report. They realized that each soldier was, in case of sickness, entitled to the best service known to the science of medicine; they realized that the people of the nation were entitled to exact evidence that the sick soldier received such care. The report just issued by the Surgeon General to the Secretary of War for the year ending June 30, 1918, is a monument in the history of medicine for its effect on the civil practice of medicine. The Surgeon General in this report has presented in an intelligible fashion the exact facts as to the care and treatment of soldiers in the army hospitals. The entire report is based upon data taken from the individual case records of the soldiers. These records for each patient were written under strict military orders, and not only was the completeness of the records checked up constantly through the Surgeon General's office, but the character of intelligence displayed by the medical officers through these records was also constantly held up to critical review.

Space does not permit here an analysis of the Surgeon General's report. But the question may fairly be asked as to whether or not the civilian hospital is not quite as much obligated to report the character of its work to its community as are the army hospitals to report to the Secretary of War and through the Secretary to the public. There is but one basis on which such report may be made and that is from properly kept case records.

To illustrate again, let us suppose that a workman enters a hospital and learns that he needs an operation for hernia. Is it not reasonable that he should ask: "Based on your figures for other cases like mine during the past year, what chances have I to be at work again after the operation?" The question is of importance to the workman. Can the hospital answer it? Can the staff and officers

claim with easy conscience that they protect the welfare of this man by every safeguard known to medical science? If so, how can they prove the claim? Or is the best of service too good for this man?

Facts, facts, — facts in the relevant personal history of each case, facts developed in the physical findings, facts brought to light by the laboratories and the X-ray, facts deduced through pliable wisdom from all of these and expressed as diagnoses, — these are the foundation of the hospital. And unless the hospital as a matter of institutional policy is in possession of these facts, filed in an orderly fashion in justification of its work, it is entitled to little credit in its community or in the medical profession. To repeat, the character of the case records is a test of the hospital's loyalty to service.

In taking the position here that the hospital is a public service corporation and that as such it is accountable, the question of ownership or of control is not raised. It is immaterial whether the hospital is municipal, state, or private. The contention here is simply that every hospital is a public service institution just as a college is a public service institution. Columbia University, for example, is a privately endowed university controlled by a self-perpetuating board of trustees. In a broad sense, however, Columbia considers herself a public service institution. It makes an annual accounting to the public for the expenditure of all of its funds; it states clearly at frequent intervals its various aims; and it analyzes its efforts to fulfill its aims. It states facts. Through the result of this policy and the wisdom of carrying it out, Columbia stands in an exalted position throughout the world. Millions of dollars go to it unsought because it has won and merited public confidence.

CASE RECORDS FOR PRIVATE PATIENTS

It is considered settled that careful, accurate, and comprehensive case records should be kept on all ward patients in the hospital. There seems to be no argument about this. Hundreds of hospitals keep these records well. But many physicians and surgeons hesitate about keeping detailed records on their pri-

vate patients, and this feeling has been responsible for much carelessness in record keeping. Under such circumstances the administration of the hospital naturally concludes that if the bars are down in one place they might just as well be down in other places.

Much serious thought is due on this subject of records for private patients. The problem is difficult. Many doctors feel that their relations with their private patients are confidential and that these cases are not to be talked about by outsiders. The result is that some of these doctors keep rather accurate records in their own offices and not in the hospitals, although the patients are cared for in hospitals. Other doctors keep no records at all of private patients. A woman, for example, has a miscarriage, or has several mishaps of the sort. Obviously the case is not one for outsiders to know about. A Wassermann has been made and the result is positive, which may account for the abortion. There may be a gonorrheal history connected with the patient, or something in the story that goes back to a syphilitic history. Very rightly these are things not to be talked about.

And, yet, should not a full record be kept? Does not the patient, himself or herself, frequently suffer because of the want of an adequate record? Suppose the doctor treats a private case and makes no record of it; and suppose that later he dies, or that the family moves away, or that for some other reason a new doctor is called into the case. Is not the patient entitled to have the experience gained by the first doctor available for use under the new conditions? The answer is undoubtedly yes. The data should be available to the patient, private or clinical.

What is to be done? Nearly all objections to the keeping of records for all patients disappear if the hospital records themselves are private and inviolable and not subject to review by any one who has not a definite right to know what the records contain. The answer is, of course, that hospital records are confidential data and should not be seen or known by any one excepting in the interest of the patient and on the patient's order or on the order of the doctor authorized by the patient. The protection of the records is a

responsibility which the hospital owes to each doctor who practices within it.

CHECK UPON CHARACTER OF SERVICE

Emphasis in the foregoing paragraphs has been placed upon case records as a test of medical honesty, or let us call it medical patriotism. A second and quite as significant a reason for these records lies in their use to prevent or minimize errors in all clinical practice; to serve as a direct test of efficiency.

Medicine in its application to the needs of the human body is both an art and a science. It can never be reduced to the simplicity or to the certainty that two and two are four. The variable factor of judgment and variations in individual patients are always present. Case records, if wisely kept, offer an invaluable means to the hospital staff to profit constantly by its own experience in practice. This phase of record keeping was especially emphasized by the College in the announcement of its first hospital survey; and in this connection the use of a summary card to make available for study and review the important data of the records was urged. But just how as a practical problem of administration are case records to be used as a test of efficiency? This question leads to a consideration of staff meetings.

WHY MEETINGS OF HOSPITAL STAFF?

The whole scheme of the universe is organization. If you pick up a gosling in the orchard, the flock of geese will attack you; you will learn a practical lesson about organization and about co-operation. The stone men hunted the mammoth together. Our early pioneers built block-houses wherein whole communities could gather and protect themselves from Indians. The building of towns, whether they be towns of people or towns of squirrels or of prairie dogs, is predicated on community action and on organization.

The individual doctor in the hospital can usually accomplish very little single-handed. But working together, all of the doctors or the staff can accomplish almost any right thing which they set out to do. Their business then

is to get together, to agree upon what they want, and to turn wishes into action.

Doctors want good service for their patients. Now the staff meeting is the means for the doctors to get together. It is the occasion, for example, at which they will find out the extent of seemingly unnecessary infection among surgical cases in the hospital, the character of these infections, and the causes of them. Almost any problem which will present itself to the staff is related directly or indirectly to the case records. Certainly the number of septic cases, the character of the infections, and the probable causes of the infections will be recorded in an adequate record system.

But harmony of purpose at staff meetings and clinical facts are not alone enough. The meetings must be an assembling of live people to discuss live subjects for a definite purpose. Each meeting must "get somewhere."

"Are we having unnecessary infections in the surgical service?" asks the head of the surgical department at the staff meeting. Certainly it is his business to know the answer to this question; and in a broad sense it is the business of every member of the staff to know the answer to this question. What are the facts? Where are the infections coming from, if they exist? Whose cases are they? What or who is to blame? Is it the operating room sterilization, or dressing room uncleanness, or water infection, or is the doctor himself to blame? Open and frank discussion of such topics will lead to action and do more for a hospital than anything else.

But let us not assume that the staff meeting is to develop into a scolding bureau. Let us rather assume that every man and every woman is doing his and her level best to get good results, and that the only sure way to get these results is to talk about the failures. More can usually be accomplished by recognition of merit, kindly expressed, than by scolding.

Again, let us suppose that the medical service is up for review. Is everything going well there? Is the dietary in good hands? Is the nursing happy, conscientious, and adequate? Are patients given the individual attention they need? Is the hospital clean? Is the air kept pure? Is the humidity right

in the wards and in the rooms? Has each case received due and prompt study, aided by competent laboratory reports?

Is there any reason why such subjects as these should not be discussed by the staff with freedom, warmth, and candor? Will not such discussion increase manifold the efficiency of the hospital?

Again, the staff may consider the material equipment of the hospital. Is there the necessary apparatus, let us say, in the examining room? Let us suppose that there is not and that the superintendent says that he has not the money to buy the apparatus. If the superintendent reports lack of funds to one doctor, the chances are that the doctor will accept the report and let it go at that; but if the superintendent reports to the staff, the staff should not and will not be casually put off. It will insist upon its need and effectively lay the responsibility upon the trustees. It will win.

Is there co-ordination between the departments of the hospital, and co-operation between individuals? Is there team-work? If not, the hospital will fail, for success and team-work live together. It takes harmony in all departments and between all departments to spell hospital success. To establish the habit of frankness in talking about these things at staff meetings will do much to create harmony.

There will be times when the trustees should be present at staff meetings to listen to wholesome truths about the hospital and about themselves and about individual members of the staff. More good can be done in five minutes' talk with the trustees in this way than can be done in a whole year of talk behind the backs of trustees.

How often ought staff meetings to be held? Often enough to keep up the active interest in the work of the institution; often enough to keep the staff members talking about hospital progress from meeting to meeting; not often enough to cause the meetings to be a burden to busy doctors. One evening a week ought not to be too much to ask of every man on the staff of a hospital to spend at staff meetings.

The objection is sometimes raised that "the

staff won't come." If this is true, why "won't" the staff come? The real answer is perhaps that the meetings are perfunctory, uninteresting, deadly monotonous, and uninteresting. If, in addition to the purposes of meeting above described, two or three clinical cases can be shown at each staff meeting, — cases that have been well worked up, the records of which are complete, the resources of the hospital being exhausted to obtain a diagnosis of the disease, and if all these points are brought out by the man whose case is being shown, and if there is instruction and information, — then the staff meetings will be like meetings to which those same medical men gladly go hundreds of miles to attend.

A staff member does not have to be a star in the medical sky to present a most interesting and instructive case. All he has to do is to have an interesting case and to present the facts marshalled in logical order. Then he will get the interest of his fellows on the staff, and meetings at which this kind of work is done will be popular and productive.

The staff meeting in every hospital ought to be a red-letter day in that institution, and everything in the hospital ought to radiate toward these staff meetings, — criticisms, complaints, and commendation. The staff meetings are the clearing-house of the hospital. The value of these meetings may be briefly summarized:

1. The fostering of great-heartedness, of determination, of courage, and of desire to grow in ability and worth. With right comradeship and purpose, the difficult task becomes the interesting task and excuses for failure give way to action towards success. Too much value cannot be attached to the right spirit of service in a hospital staff; and human nature is such that we need constant sincere interchange with our fellows to keep that spirit at its brightest glow. "Repeat to me every criticism you hear," said Pasteur; "I shall prefer them to praise."

2. The elimination to a practical degree of incompetence, negligence, or laziness in the hospital, first, because the staff meetings serve to stimulate and to inspire each member to his highest effort; and, second, because elements of incompetence, negligence, etc.

will become so plain that those who continue guilty will either voluntarily resign from the privileges of practice in the hospital or be requested so to do. All of this means protection to the patient.

3. The internes and the younger men in medicine today will in a brief period become the masters in the profession. The character of their leadership will depend much upon the inspiration gained by example during the early years of their life's work. Fearlessness in seeking truth and evidences of honor which will develop at staff meetings will put into the hands of internes the lights which shall burn after the present masters are gone.

4. Staff meetings in time will be productive of data relative to the treatment of disease which are comparable among hospitals. When the practice of regular staff meetings becomes general among hospitals and when the facts and results of practice are regularly summarized in intelligible form, we shall have a mass of information which will not only lead directly to the advancement of medicine, but which will also create a wholesome rivalry among hospitals and thereby stimulate further progress.

PRACTICAL POINTS ABOUT CASE RECORDS

1. The basis of a good case record is keen native ability, sound training in medicine, and the use of both in the care of a patient. Upon the condition of the patient depends the extent of the record. The record consists only of such facts as will be of worth to the patient in the study and treatment of the case; and to the profession for its information in the treatment of similar cases in the future.

2. Whatever the nature of a serious illness, that illness has a relation to the entire body and, though briefly stated, this relation should be recorded. Novel writing under the guise of case records is a waste of time, energy, and money.

3. The psychology of case records is admirably designed for the prosperity of the hospital. A patient who is convinced that his case has been wisely studied and considered of sufficient importance to be recorded is usually a satisfied patient. A bond at once results from this procedure between the

patient and the hospital to their mutual advantage. Sound, complete physical examinations often make unnecessary what seems at first a necessary surgical operation.

4. Insistence upon case records in no way reduces the practice of medicine to a machine-made process. The entire process is human and the records are human documents. They are the sincerity and reality of good work; they are the muffins and not the promise of muffins. Good records have something in them that can be made at no mill. They are not dull facts recorded as a mere routine. They are the records both of an art and of a science, the whole design of which is shot through with the purpose to prolong life, to relieve suffering, to make life glad and nutritious. They are a chief basis of progress in the medical profession, a means to extend the science of medicine and to make surer medical practice: and when the value of case records is estimated at its true worth, all wavering as to the task of keeping them will end in determination.

5. Who is to be responsible for hospital records? The old saying that everybody's business is nobody's business applies to case records. If the records are worth keeping and if they are worth keeping so that their contents are available for study and review, then somebody must have charge of them; somebody must check them up, see that they are all promptly complete, conveniently accessible, and protected from misuse. In a small institution, not oversupplied with funds, it may be wise to double up on duties in this matter. The person who keeps the records may also have other things to do, perhaps in the receiving room, or in the bookkeeping department. But in a hospital of considerable size and especially in a hospital of great earnestness, the records are the sole responsibility of one person.

Supervision of records usually falls to a woman; and if the woman is competent, it may be understood at the outset that she will not be popular for a long time at least with those for whom she works. She will be a nagger and a nuisance to those who are indisposed to keep up to the hour with their records. She will have to appeal to the

doctors, and sometimes appeal over the heads of individual doctors to the staff as a whole. But by insistence upon performance of duty the recordkeeper will ultimately win the hearty good-will of the staff and render also a service mightily worth while.

6. A word about filing records and indexing: If records are useful, they ought to be continually useful, which means that they must be accessible. They cannot be useful if tied in bundles indiscriminately and packed away in the attic or basement.

How are records to be filed? Of course, they must be filed so that any record can be quickly found in good and usable shape. Many methods of filing records have been proposed and tried, but no system has been found that answers better all purposes than the envelope system or the vertical filing system, each record in its own envelope or folder. The patient's name and number appears on the corner of the envelope or folder so that one may readily find any record. The system of binding records in volumes meets with little approval in practice. The volumes cannot freely be taken from the library and hence the doctor who wishes to examine the record, especially of a patient who returns to the hospital on a second or subsequent visit, must practically have an abstract made of that record. When a patient comes into a hospital and it develops that he or she has

been there before, the new record should be added to the former one. It is not necessary that the record on this last visit should have the same number.

This consideration raises the question of indexing. If there is a librarian at the hospital who has charge of the records, she will make her service most useful by keeping three indices, each in alphabetical order, of the cases as follows: First, an index of the names of the patients; second, an index of the final diagnoses; and, third, an index of the organs affected. Other index entries may also be kept which concern complications.

Records indexed in this way are available for the purposes of the literature. The hospital also can readily find the patient's record where the patient is concerned by name; and for the purposes of the literature the librarian can pick out required records without trouble. If a staff member, for example, is writing on pneumonia, the index shows all of the pneumonias which have occurred in the hospital, including those with pneumonia as a secondary complication. Again, if the doctor is writing about an organ or the diseases of an organ, or is studying some problem incident to a certain organ, all the cases that have ever been in the hospital in which this particular organ was involved can be procured without delay.

EXPLANATION OF RECORD FORMS

The following pages are submitted in explanation of the charts or record-forms published by the College as Bulletin No. 2, Vol. IV. These forms were prepared after careful analysis of the practical experience among many hospitals in the keeping of records, including the hospitals of the United States Army and of the Navy. Maximum simplicity was the constant aim in this work. Criticisms and suggestions for the betterment of these forms are cordially invited.

Copies of Bulletin No. 2, Vol. IV, may be had on request.

SUMMARY CARD

Case records, although accurately kept, are

frequently not available for review because the important information in them for this purpose is lost among other details. Significant facts in each case may be recorded, therefore, to great advantage upon a summary card.

Notes under the different headings should be made with the idea that they are available for rapid review. Wherever details are important and yet too extensive to be placed on the card, reference should be made to the main record. The meaning of the headings of the card is explained in the following paragraphs:

DOCTOR. At the top of the card under *Case No.* provision is made for the name of the

doctor responsible for treatment. If one physician or surgeon only is concerned in a case, it is clear that he is responsible. But in modern hospital practice it frequently happens that the responsibility is divided among many individuals. In such event, a single physician or surgeon usually directs the patient to other specialists for report and the name of this physician or surgeon should be here recorded.

FINAL DIAGNOSIS. This record is essential to an analysis of the work done in the hospital. Secondary and coincident diagnoses should be recorded in the order of their importance.

WORKING DIAGNOSIS. A statement is made of the pathologic condition which the doctor first considers most plausible. Both the profession and the public realize that in clinical work it is often impossible to be certain that the working diagnosis is correct, even with the best of equipment and of medical knowledge, but when a doctor accepts the responsibility of treatment he is, in fairness to the profession and to his patient, under obligation to state what he believes is the cause of the illness for which the patient seeks relief. If the cause of the illness cannot be determined, the physician or surgeon should state that fact.

RESPONSIBLE RELATIVE OR FRIEND. For follow-up purposes it is advisable to have more than one address through which the patient may be reached. The address here recorded should differ, if possible, from the patient's. The business address of an employer is sometimes of advantage.

CAME FOR RELIEF OF. A brief synopsis of the complaint is given.

TREATMENT: IMPORTANT POINTS. Under this heading the physician or surgeon responsible should note only the essential points, and write down the items that he may wish to know a year later if the patient returns to report his condition. If the operation or treatment is very complicated, the notation may be "a difficult, complicated operation described in detail in main record."

COMPLICATIONS. This heading is most important for efficiency studies. If the word "none" follows the heading, it means that there were literally no complications such as sepsis, bronchitis, cystitis, phlebitis, inter-

current infections, or other conditions resulting directly from the treatment or operation or following it from other causes.

PATHOLOGICAL REPORT. So much of the various pathological reports should here be entered as would be important for the person who examines the case a year later to know.

CONDITION ON DISCHARGE. A specific statement is given of the patient's condition in relation to his normal health, and positive or negative evidence of the persistence of any symptoms pertaining to his illness.

FOLLOW-UP RECORD. On the reverse side of the card space is provided for notes of the case to be made at subsequent visits of the patient, or from subsequent reports as to the condition of the patient. These notes should be brief and concise.

PERSONAL HISTORY

The personal history is the part of the case record which states the complaint of the patient, former illnesses, habits, and social condition; it is a summary of the patient's life in its relation to pathology and is essential in the proper study of the case. A brief explanation of important headings follows:

FINAL DIAGNOSIS: To be recorded when determined. The position of this heading at the top of the page is favored by general custom. It makes most easily accessible this important information. The heading is self-explanatory.

FAMILY HISTORY. The purpose is to discover evidence of hereditary or infectious diseases. The recorder, therefore, should inquire regarding the health or disease of those who may have such a relation to the patient.

CHIEF COMPLAINT. The record should state briefly and in order the reasons (signs and symptoms) for seeking medical aid. It is then advisable to begin with the date, mode of onset, and probable cause, and continue with an orderly narration of the circumstances, signs, and symptoms of the present disease or injury, with an analysis in detail of each up to the present time. In cases of injury determine how, when, and where the injury was received; names of witnesses are often important.

The record should generally omit the patient's inferences and opinions. For example, the complaint should be stated as "pain in the back" and not as "weak kidneys." As the patient usually refers the signs and symptoms to regions or organs, he may complain, let us say, of "stomach ache." While the patient may have stomach ache, the study of the case at this stage does not warrant this conclusion. In such an instance the fact only should be recorded as pain in or near the epigastrium.

PAST HISTORY. Diseases from childhood to date, habits and social condition are recorded. These subjects are important because they may have direct bearing on the present condition. For example, tonsillitis, chorea, rheumatism, and endocarditis may precede an uncompensated heart. Record the diseases in chronological order, beginning with childhood and continuing to the present time. As the patient may have forgotten his illnesses, it may be helpful to specify diseases such as measles, whooping cough, scarlet fever, typhoid, pneumonia, tonsillitis, rheumatism, venereal disease, malaria, etc. Inquire regarding operations. If any illness is mentioned which may have had a complication, inquire about the complication and record the significance of the answer. Record general health as "excellent," "good," "fair," "poor," etc.

In the matter of habits, state use of alcohol, drugs, tobacco; give daily average and approximate number of years used. Inquire regarding exposures, sleep, regularity, etc. Avoid generalizations; use "oc" (occasionally) to express infrequent custom. Concerning the social condition, determine the character of work done either at the present time, or if important, in the past; what materials have been handled; exposure to dust, heat, moisture, etc.; and any postural, muscular, or nervous strain to which patient is or has been subjected. Obtain tactfully social data, hours and days of work, home surroundings and family responsibilities, recreation, etc. These facts may have diagnostic and therapeutic importance.

Example. Electrotyper, frequent graphite dust, some acid fumes, much contact with

metallic lead, some with copper, no precautions. Social data: Steady worker, eight hours, six days, \$125 per month, sole support of family of six. In small third floor flat. Felt "tired for years" but could not afford vacation.

Following the story of the complaint and of the past history, inquiry as to the various systems is advised. For this purpose the outline given below may be helpful. This outline is not a series of rules, but rather a guide to common sense. The inquiry need not be limited to the points covered, nor will every case require the complete review.

OUTLINE FOR PERSONAL HISTORY

I. HEAD.

1. Headache: Inquire as to location, character, continuous or periodic, dull, sharp, or radiating; dizziness, faintness, convulsions, memory, speech disturbances.
2. Ears: Deafness, earache, discharges, ringing, mastoid diseases.
3. Eyes: Defective vision, temporary blindness, double vision, pain.
4. Nose: Sense of smell, epistaxis, character of discharges, sneezing, nasal obstruction.
5. Mouth: Sore mouth, condition of teeth and gums.
6. Neck and Throat: Swelling of the neck, sore throat, adenoids, tonsillitis, quinsy.

II. CHEST.

1. Lungs: Inquire as to colds, their frequency, duration, and relation to upper air passages; any history of bronchitis, pneumonia, pleurisy, empyema; cough, acute or chronic, duration, morning cough; expectoration, spitting blood; breathing; night sweats; chilly sensations and where located.
2. Heart: Inquire as to palpitation; shortness of breath; dyspnoea, whether continuous, paroxysmal, or nocturnal; swelling of feet and ankles; puffiness of eyelids; precordial pain, its character, continuous or periodic, radiation, etc.

III. ABDOMEN.

1. Stomach: Inquire as to appetite; rapid eating, overeating; thirst; indigestion; dyspepsia; belching gas; heartburn; sour stomach; nausea; vomiting, character and kind in relation to meals and sudden changes in position; abdominal pain, kind, location, duration, relation to meals, and exercise, effect of food and of alkali.
2. Intestines: Inquire as to regularity, distention, pain, constipation, diarrhoea, character of stools, jaundice, hæmorrhoids, bleeding from rectum, hernia.

IV. EXTREMITIES.

1. Inquire as to pain, swelling, change of color of skin, motion, sensation, strength, control, dislocations, fractures, etc.

V. GENITO-URINARY SYSTEM.

1. Urination: In general inquire as to frequency relation to day and night; incontinence, dribbling, retention, delay in starting; passing of stones, gravel, blood, pain or burning, their relation to micturition.

2. Venereal History: (a) In men inquire regarding gonorrhœa, syphilis, chancre, swollen testicle, etc. (b) In women the history should be secured with great tact. Consequently it is advisable to begin with menstruation; its onset, frequency, duration, date of last period, dysmenorrhœa, leucorrhœa, menopause, hæmorrhage, nervous symptoms. When indicated, inquire about children, number, age, health, cause of death, occurrence of miscarriages with the cause, induced or otherwise. It should be remembered that frequently women are unaware of the presence of venereal infection and that much of the evidence may be indirect.

The following terms may be used: *Denied*, if patient reports a negative history; *negative*, if it has been absolutely determined that no venereal disease has previously existed. If *positive*, state name of the disease and date; if *not positive*, state facts that may be helpful in determining condition; for example, "Urethral discharge in 1910; treated and discharged as well in 10 days."

Be conservative in the use of the terms "chancre," and "chancroid." Usually it is better to say, "genital sore," and to follow this with a statement of all available evidence.

VI. MENTAL DISORDERS.

Excitability, worry, restlessness, etc.

PHYSICAL EXAMINATION

In the preceding pages the personal history has been described as including the complaint, former illness, habits, and social condition of the patient. That is essentially the patient's story and should not be confused with the physical examination.

The physical examination consists of the actual findings of the doctor as a result of a thorough examination of the patient. This examination consists not of opinions but of objective facts. It is the material which, taken together with the personal history and later laboratory findings, makes up the basis for the diagnosis.

OUTLINE FOR PHYSICAL EXAMINATION

I. HEAD.

Cranium and scalp: Pathological abnormalities; in children fontanelle.

Eyes: Lids, prominence of globes, movements, pupils, size, shape, equality, reaction, corneal scars, sclera, conjunctiva, vision.

Ears: Hearing, topi, discharges, mastoid tenderness.

Nose: Deformities, septum, discharges, turbinates.

Mouth: Lips, mucous membranes, tongue, teeth and gums, pharynx and tonsils, reflexes, breath.

Neck: Mobility, thyroid glands, circulatory phenomena, cervical rib.

II. CHEST.

In examining the chest, notes should cover inspection, palpation, percussion, auscultation, and radiography in selected cases.

Inspection: The following points may be emphasized: size, general shape, and nutrition; local deformities or tumors. Respiratory movements of the chest wall, expansion, type of breathing, drawing in of interspace. Respiratory movements of the diaphragm, Litten's phenomena.

Palpation: The following may be suggestive: Confirm inspection data; tactile fremitus, or vibrations of the spoken voice; presence of pleuritis, or pericardial friction; rosary in children.

Percussion: The following may show: mobility of the lung borders, excursion; resonance, vesicular, diminished or dull, absent or flat, cracked pot, amphoric, tympanitic, for comparison percuss symmetrical points.

Auscultation: The following signs may be obtained: normal breath sounds; bronchial, bronchovesicular or vesicular sounds. Abnormal breath sounds: vesicular, exaggerated, diminished, cogwheel, bronchial or tubular, bronchovesicular; amphoric or cavernous. Vocal resonance; normal, diminished, increased, bronchophony, egophony, pectoriloquy, amphoric; whispered voice sounds.

III. CARDIOVASCULAR SYSTEM.

Heart: The following signs may be observed:

Inspection: note location of apex beat; character, force and rhythm; abnormal pulsations; retraction of the interspaces; precordial prominences and depressions.

Palpation: Locate the apex beat; size, shape, force, presence or absence of thrills.

Percussion: Determine and measure the outlines of cardiac dullness. Measure from the mid-sternal line at the level of the fourth interspace. It is preferable to express measurements in terms of centimeters.

Auscultation: Note the character of the first and second heart sounds, diminution, accentuation, adventitious. Adventitious sounds: note time and quality, change or lack of change on deep inspiration and expiration and their transmission. In auscultation, it is best to follow a definite

routine: start at the apex, pass upward toward the pulmonic area, then downward on both sides of the sternum and over the sternum itself to the tricuspid area in both sitting and prone positions.

Vascular System: In the examination of the arteries attention is drawn to their condition, stiffening, tortuosity, abnormal pulsations, etc. Blood-pressure is of importance. The condition of the veins should also be noted.

Fluoroscopy or radiography should be used when necessary.

IV. ABDOMEN.

Inspection: Observe the general contour of the abdomen; respiratory movements, their limitation or absence; peristaltic movements; local prominence or (rarely) depression, bulging in flanks; note skin and navel, distended and tortuous veins, striæ, scars.

Palpation: The different areas should be examined in a definite order, keeping in mind the different organs. Observe whether soft, full, retracted, distended, or rigid. Note any sensitiveness, local or general, deep or superficial, its character, with or without spasm. Note any masses: size, shape, consistency, mobility with pressure and with respiration, tenderness, pulsation, adhesions to skin or abdominal wall, relation to any abdominal organ. In the examination of the abdominal organs, the following may be suggestive: in the liver, its size, shape, firmness, mobility, and presence or absence of irregularities, if palpable; in the gall-bladder, if palpable, note tenderness; in the spleen, determine enlargement and mobility; in the kidneys, note tenderness in costovertebral angles; in the colon, tenderness, size, consistency; care should be given to the appendix and duodenal region; also examine for epigastric or umbilical hernia.

Percussion: This may be valuable in determining the presence of fluid free in the peritoneal cavity and may aid in distinguishing gaseous from other types of tumors. Valuable information regarding the outline of the spleen and liver is sometimes obtainable.

Fluoroscopy and radiography may give valuable information.

V. RECTUM.

When indicated, examine for hæmorrhoids, fissures, fistulæ, abnormal prominences or resistance, tender spots and strictures. Note tonicity of the sphincter. In the male the shape and size of the prostate gland, its consistence, and the presence of tenderness are of importance. The normal seminal vesicles may be felt if distended; if hard and nodular, it should be noted.

In women, pelvic conditions may be determined per rectum when the hymen is narrow. Palpation should always be bimanual.

VI. GENITO-URINARY.

In this examination, the following may be sug-

gestive: In the male, scars, discharges, phimosis and malformations of the penis; deformities, atrophy and swelling of the testicle; changes in the cord; varicocele, hydrocele and epididymitis.

In the female, gynecological examinations may be made in suitable cases and attention is called to the outlet and discharges of the vagina; the size, position and displacement of the uterus; tenderness or swelling in the region of the tubes; enlargement, tenderness of ovaries. Special examinations, as cystoscopic, etc., may be made when indicated. In examining the glandular system, attention may be given to the cervical, axillary, epitrochlear and inguinal.

VII. SKIN.

In this examination the color, general condition, and the presence or absence of lesions may be noted. A special examination should be made when indicated.

VIII. BONES AND JOINTS.

Judgment will be used in determining to what extent the examination of the bones and joints may be necessary. Any doubtful findings will at once suggest a more thorough examination, possibly including the X-ray. In general the posture and general appearance should be noted; any deformity should be suggestive; the evidence of pain, tenderness, swelling and impairment of motion should suggest a more careful examination.

IX. NEURO-MUSCULAR.

The same observation applies to neuro-muscular examination as to that of the osseous system. A topical examination for nerve lesions is not here intended. The following suggestions are for general examinations.

Motion: Note gait, paralyses, spasms and tremors, co-ordination.

Sensation: Note insensibility to pain, touch, heat and cold, muscle sensation; sense of movement, position, Romberg's sign.

Reflexes: Pupils, normal reflexes, Argyll-Robertson pupil, dilatation, contraction, contraction with irregular outline; tendon reflexes, biceps, triceps, scapulohumeral, radial, patellar, Achilles; skin and muscle reflexes, epigastric, abdominal, cremasteric, Oppenheim, plantar, Babinski.

Muscles: Atrophy, hypertrophy.

X. SPECIAL EXAMINATIONS.

X-ray, ophthalmic, laryngeal, and other special examinations should be recorded on the special sheets provided, and filed with the history. Note should be made on the physical examination sheet of these special examinations in order that a complete summary of all examinations may be obtained from one record.

XI. DIAGNOSES.

When the examination is finished, the tentative or working diagnosis should be recorded at the top

of the sheet, and the record signed by the examining physician.

EYE, EAR, NOSE AND THROAT

It is important that the suggestions made for the other charts should be carried in mind in making the eye, ear, nose, and throat records. In normal cases a summary of the patient's general physical condition should be recorded. In certain types of cases it will be necessary that a complete physical examination be made which may be recorded upon the physical examination chart.

OPERATIVE RECORD

The headings on this sheet are for the most part self-explanatory. The following notes, however, may be helpful.

POSTOPERATIVE DIAGNOSIS. This diagnosis should be recorded as soon as operation is completed, first place being given to the primary diagnosis, followed by secondary diagnoses in order of importance.

PREOPERATIVE DIAGNOSIS COMPLETE. The full clinical diagnoses of the attending physician, of the operator, and of any members of the staff who have studied the case, should be recorded and initialed or signed before the operation begins.

FINDINGS. The gross findings should include not only the pathology of affected organs, but also the condition of all organs explored. These findings are of value especially in the event of later complications. The microscopic findings are a summary of the pathologist's report.

WHAT WAS DONE. A full description of the operative procedure, the incision, territory traversed, tissues encountered, method of closing wound, suture material, drainage, etc., together with details of any unusual or new technique.

IMMEDIATE POSTOPERATIVE CONDITION. Hemorrhage, shock, or any immediate complications.

TREATMENT RECORD — PHYSICIAN'S ORDERS

This sheet is designed as the record of orders for all medicines, treatments and diets, each such order to be signed or initialed by the doctor in charge. In some hospitals the

physician dictates his orders to the nurse in charge; then, after reviewing them, he signs to them his initials.

In some hospitals it may be desirable to combine the treatment record, the progress record, and the nurses' record.

PROGRESS RECORD

The progress record is an orderly story of the course of the disease. It consists of notes made each day for serious cases; of new signs or symptoms, complications, consultations, with opinions expressed, and consultant's name; of the removal of drains, splints, stitches, etc., and of the development of infection in a clean wound, its cause and character. The development of complications should be descriptive; for example, in a postpneumonic course the appearance of an empyema should not be indicated by diagnosis, but by physical findings, such as general symptoms, changes revealed by auscultation and percussion, blood count, exploratory puncture, or any procedure instituted in determining a diagnosis. The condition of the patient on discharge should here also be recorded as well as the final diagnosis. The latter should then be transferred to the personal history sheet.

Each record should be dated and signed with surname or initials by the recording physician, as it is made.

LABORATORY RECORD

The content of these charts is self-explanatory. Spaces have been left under important subjects and at the bottom of the chart for more detailed description when needed.

The urine, blood, and sputum charts have lines drawn forming columns which may be used for successive reports. But whenever a single or more detailed report is desired, these lines may be disregarded.

Under smears, exudates, transudates, cerebrospinal fluid, cultures, etc., sufficient freedom has been given to adapt the form to any of the subjects named.

Colored charts are used in many hospitals for convenience of identification.

LABOR RECORD

In this record space has been given for

recording successive findings on external and internal (vaginal or rectal) examination. The method of examination should be stated and may be represented by the initial V. for vaginal and R. for rectal. In cases where gloves were not used this fact should be stated. In recording the findings, under the external and internal examinations abbreviations may be used; for instance, examinations may be recorded as follows: external examination: 10:15 a. m. 2nd Stg. 5m O. O.L.A., 120 W., which means that the time of examination was at 10:15 a. m. Second stage, strong contractions at five minute intervals, occiput presenting, in a left occiput anterior position, the heart tones numbered 120 and were weak in character.

NEWBORN RECORD

TEMPERATURE. To be recorded as soon as the baby is dressed and a comparison made

with the normal. A difference of the temperature may be suggestive.

MEASUREMENTS. In the description of the head, the configuration, ossification, size of fontanelles, sutures, caput succedaneum (size and location) and measurements may be recorded.

GENERAL CONDITIONS. A short statement regarding the primary respiration, whether normal, delayed (how long), superficial, obstructed or absent, with the treatment, is desirable. The circulation may be explained by normal, congested or anæmic. There should be a statement as to whether the child was born living, asphyxiated (mild or severe), stillborn, not viable, macerated. The development, cry (vigorous, weak, whining), condition of skin and amount of fat are of importance.

ANOMALIES AND INJURIES. There should be no question as to recording these in detail when they occur.

BIBLIOGRAPHY

WITH SPECIAL REFERENCE TO CASE RECORDS

AMERICAN HOSPITAL ASSOCIATION. Transactions. ASSOCIATION OF AMERICAN MEDICAL COLLEGES. Transactions.

BALDY, JOHN M. Hospital standards. Jour. Med. Soc. New Jersey 15: 337-340, 1918.

Standards of hospital education for interns. Modern Hosp. 10: 397-403, 1918.

BALDY, JOHN M., and others. Hospital standardization. Penn. Med. Jour. 20: 213-219, 1916-1917.

BELLEVUE HOSPITAL. Report of the Committee on inquiry into departments of health and charities, and Bellevue and allied hospitals. Section 10, problems and reorganizations. City of New York, 1913.

BIRTCHE, F. W. Clinical inefficiency of hospitals and a suggested remedy. Calif. State Jour. of Med. 14: 375, 1916.

BOTTOMLEY, JOHN T. Hospital standardization: its meaning. Boston Med. and Surg. Jour. 179: 219-223, 1918.

BROWN, JOHN YOUNG. Hospital organization and efficiency. Modern Hosp. 9: 428-429, 1917; American College of Surgeons, Bulletin, 3, No. 1: 17-19, 1917.

BROWN, LEROY. Surgical record system of the Woman's Hospital. Amer. Jour. Obst. 77: 642-651, 1918.

CABOT, RICHARD C. Physical diagnosis. N. Y. Wood, 1915.

CAPPS, J. A. Efficiency tests applied to the attending and house physicians of the Cook Co. Hospital, Chicago. Boston Med. and Surg. Jour. 177: 286-287.

CATHOLIC HOSPITAL ASSOCIATION. Transactions. CATLIN, LUCY CORNELIA. The hospital as a social agent in the community. Saunders, 1918.

CODMAN, E. A. The product of a hospital. Surg., Gyn. and Obst., 18: 491-496, 1914.

Report of Committee on standardization. Surg. Gyn. and Obst. 22: 119-120, 1916.

A study in hospital efficiency as demonstrated by the case report of the first five years of a private hospital. Boston, Pub. by the author.

Value of case records in hospitals. Modern Hosp. 9: 426-428, 1917; American College of Surgeons, Bulletin, 3, No. 1: 24-27, 1917.

DICKINSON, ROBERT L. Hospital efficiency from the standpoint of a hospital surgeon. Boston Med. and Surg. Jour. 172: 775-778, 1915. Bibliography.

Hospital histories. Amer. Jour. Obst. 58: 68-86, 1908.

The new "efficiency" systems and their bearing on gynecological diagnosis. Amer. Jour. Obst. 70: 865-879, 1914; Amer. Gyn. Soc. Transactions, 39: 33-51, 1914. Bibliography.

Practicability of ratings in appointment and promotion of members of the visiting staff. Medical Record, 89: 872-873, 1916.

DICKINSON, ROBERT L. Need of instructors and inspectors as hospital officers. *Amer. Jour. Obst.* 72: 385-396, 1915. Bibliography.

DREW, CHARLES A. Standardization of hospitals. *Boston Med. and Surg. Jour.* 178: 527-530, 1918; *Modern Hosp.* 11: 56-57, 1918.

ECKMAN, RENA S. Standardization of the work and training of the dietitian. *Modern Hosp.* 10: 52-54, 1918.

EDWARDS, ARTHUR E. Treatise on the principles and practice of medicine. 3rd. edition. Lea and Febiger, 1916.

GILBRETH, F. B. Scientific management in hospitals. *Amer. Hosp. Assoc. Transactions.* 16: 483-494, 1914.

GOODWIN, HAROLD C. The hospital, a teaching institution. *Modern Hosp.* 10: 36-41, 1918.

HART, A. O. Hospital organization and management in small cities. *Jour. Michigan State Med. Soc.* 16: 212-215, 1917.

HORNSBY, JOHN ALLAN. The hospital problem of today; what is it? *American College of Surgeons, Bulletin*, 3, No. 1: 4-11, 1917; *Modern Hosp.*, 9: 322-328, 1917.

Modern Hospital. Saunders, 1913.

HOSPITAL MANAGEMENT. Files.

KANAVEL, ALLEN B. The educational responsibility of the hospital to the profession and the community. *Modern Hosp.* 9: 430-431, 1917; *American College of Surgeons, Bulletin*, 3, No. 1: 27-29, 1917.

KILGORE, EUGENE S. Clinical records in relation to teaching and research; a plan to promote conservation and utilization of material. *Bost. Med. and Surg. Jour.* 73: 767-772, 1915.

Clinical records; Outline of case histories; Blank forms; Later clinical notes and list of abbreviations; The ward reference book. *Calif. State Jour. of Med.* 13: 425-428, 463-468, 1915; 14: 12-14, 55-58, 1916.

LAMBERT, ADRIAN V. S. Record system at the Presbyterian Hospital. *Modern Hosp.* 12: 12-16, 1919.

MARTIN, EDWARD. The hospital and its community. *American College of Surgeons, Bulletin*, 3, No. 1: 12-14, 1917.

MODERN HOSPITAL. Files.

NEW JERSEY STATE BOARD OF MEDICAL EXAMINERS. Standardization of hospitals adopted by the board. 1916.

OCHSNER, ALBERT J., and STURM, MEYER J. Organization, construction and management of hospitals. Chicago, Cleveland press, 1907.

OCHSNER, ALBERT J., and PERCY, NELSON M. New manual of surgery, civil and military. 5th ed. Chicago, Cleveland press, 1917. Page 31.

PAINTER, F. M. Extending the influence of a hospital; teaching diagnosis; case records of the Massachusetts General Hospital. *Modern Hosp.* 11: 355-357, 1918.

PENNSYLVANIA MEDICAL EDUCATION AND LICENSURE BUREAU. Hospital intern year. *Bulletin*, No. 6, Jan. 1917.

PHILADELPHIA COUNTY MEDICAL SOCIETY. Reports of the Hospital efficiency committee. Oct. 21, 1914; June 17, Nov. 26, 1915.

READ, J. MARION. History in group study. A summary of one hundred case histories. *Calif. State Jour. Med.* 14: 369-371, 1916.

RIDDLE, MARY M., and others. Record of patients and annual report. *Amer. Jour. of Nursing*, 17: 437-444, 1916-1917.

SINGER, H. DOUGLAS. Efficiency system for the medical work of state hospitals. *Modern Hosp.* 11: 260-263, 1918.

STANDARD of efficiency for the first hospital survey of the College. *American College of Surgeons, Bulletin*, 3, No. 3, 1918, March.

STANDARDIZATION OF HOSPITALS COMMITTEE. End result record system. *Surg. Gyn. and Obst.* 18: Clinical congress of surgeons, 9-12, 1914, June.

STANDARDIZATION OF HOSPITALS CONFERENCE. *Surg., Gyn. and Obst.* 26: American College of Surgeons, 1-6, 1918, June.

SURGEON GENERAL, U. S. ARMY. Report of Surgeon General Gorgas. 1918.

TULEY, HENRY ENOS. Some problems of hospital management. *Modern Hosp.* 11: 169-173, 1918.

UNITED STATES ARMY BASE HOSPITAL, Camp Wheeler, Ga. The clinical record, 1918.

WARD, GEORGE GRAY. Hospital standardization and its application to the organization of a special hospital. *Amer. Jour. Obst.* 78: 65-78, 1918.

WETHERILL, HORACE G. Plea for higher hospital efficiency and standardization. *Surg. Gyn. and Obst.* 20: 705-707, 1915; *Western Surg. Assoc. Proceedings*, 1914.

YAGGI, H. K. Hospital standardization. *Ohio State Med. Jour.* 14: 470-472, 1918.

